

### REMARKS

Upon entry of the present amendment claims 1-6, 12, 13, 15-21 and 25-30 are pending in the application. Claims 5, 6, 16, 17, 20 and 25-30 were withdrawn from consideration by the Examiner on the basis that there was no allowable generic or linking claim.

#### 35 USC §112, First Paragraph Rejection

Claim 4 was rejected under 35 USC §112, first paragraph for the because the specification was determined not to provide support for the mixture of (i), (ii) and (iii). Applicants have amended the claim to a Markush format. Withdrawal of the rejection is respectfully requested.

#### 35 USC §102 (b) Rejection

Claim 1-4 were rejected under 35 USC §102(b) as being anticipated by Schwarte et al. Schwarte was stated to disclose mixtures of substances prepared by polymerization of unsaturated monomers, such as butyl acrylate, methyl methacrylate and styrene in solvents. Solvents included polyols such as butane diol and butyl glycol.

Claims 1-4 and 15 were rejected under 35 USC §102 (b) as anticipated by Dammann. Dammann was stated to disclose curable binder compositions based on unsaturated monomers obtained by polymerizing butyl acrylate in diluents having functional groups, particularly aliphatic hydroxyl groups (e.g. polyether triols) as reactive diluents.

Claims 1-4 and 15 were rejected under 35 USC §102 (b) as anticipated by Eschwey, which discloses preparing solution polymers of acrylic or methacrylic acid esters of alcohols. Acrylic or methacrylic monomers are polymerized in a solvent of high-boiling alcohols of from 8 to 40 carbon atoms and 1 to 6 hydroxyl

groups. The polymers are used to improve flow properties of lacquers. Alcohols useful in the process included n-octanol and other isomeric octanols, ethylhexanol and isomeric demethyloctanols. All suitable alcohols have a boiling point of above 160°C. Other useful alcohols were fatty alcohols with 12-18 carbon atoms and saturated mono-alcohols with 12 to 36 carbon atoms.

Applicants have amended the claims to more specifically define the alcohols. The alcohols used in the present invention include compounds not taught in the prior art references. The polyol (ii) has been deleted from the claims. The polyols defined as (i) and (iii) remain in the claims. These polyols are defined and distinguished from the references for the reason that the claims teach hyperbranched compounds and the references do not. Additionally, the claimed solvents contain ether, thiol and amine linkages and specifically do not include ester, urea, urethane or amide linkages.

Claims 1-4 and 15 are not anticipated by Schwarte et al. (Schwarte) teaches reactions utilizing butane diol and butyl glycol solvents along with several other linear solvents as solvents in polymerization reactions. The reference does not teach or suggest hyperbranched solvents. The solvents described are all linear compounds. The linear compounds would not provide the steric hindrance and the resultant rigidity imparted to the polymer by the steric hindrance. Because Schwarte does not include all of the limitations of the instantly claimed invention the reference does not anticipate the claims. Withdrawal of the §102 rejection and reconsideration of the claims is respectfully requested.

Claims 1-4 and 15 are not anticipated by the Damman reference because the reference does not teach a hyperbranched solvent. Also, Damman requires that where an oxirane is utilized, the resultant polymer contains an oxirane group in the polymer chain itself. In the instant claims, where an oxirane group is

present, the group is be present as a side group and is not reacted into the polymer chain. The reaction product would be for example,



and not the polymer chain containing an oxirane as depicted in Damman at col. 4, line18.

The presence of an oxirane side chain instead of the polymerization of the oxirane into the polymer chain itself would make a difference to the performance of a resin in a paint formulation, adhesive or other end product, as the ether bonds in a polymer chain are prone to hydrolysis, which causes degradation of the polymer chain and not merely cleavage of a side chain, leaving the polymer backbone in tact. The diluent as defined in the instant claims is further distinguished from Damman as it could not provide an ester functionality as required in one embodiment of the reaction described in Damman (see col. 3, lines 52-65 and col. 4, lines 1-24).

Claims 1-4 and 15 are not anticipated by Escheway reference for the reason that element (ii) cyclic and/or alicyclic  $C_9-C_{16}$  alkanes with at least two hydroxy groups or at least one hydroxyl and one thiol group, has been canceled. The reference does not teach compounds (i) or (iii) as defined in the amended claims. The reference teaches octanols and other straight chain alcohols as the reactive solvent. The reference does not teach a compound where the alcohols are reacted onto the polymer as sidechains (i.e. polyol (iii)). The reference does not teach hyperbranched alcohols (i.e. polyol (i)). Withdrawal of the §102 rejection and reconsideration of the claims is respectfully requested.

Claims 12 and 18 were rejected under 35 USC §102(b) as anticipated, or alternatively under 35 USC §103(a) as obvious in view of Eschwey. Applicants submit that since the claims depend on claim 1 and include all of the limitations of amended claim 1 the claims do not define a polyol solvent either alcohols obtained from C12- C18 fatty alcohols or C12-C36 mono-alcohols as defined in Eschwey. Applicants respectfully request withdrawal of the rejection and examination of the claims.

35 USC §103(a)


Claims 13 and 19 were rejected under 35 USC §103 as unpatentable over Eschwey et al. Claims 13 and 19 were canceled without prejudice.

Petition for Rejoinder

Applicants petition for rejoinder of claims 5, 6, 16, 17 and 20 in the event that claim 3 is determined patentable, as this would be an allowed generic or linking claim.

For the reasons set forth above, Applicants submit that the cited references are patentable over the cited references. Accordingly, Applicants respectfully request reconsideration and allowance of the claims

Respectfully Submitted,



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